SONY

Color Video Monitor

PVM-20L4
PVM-14L4
PVM-14L3







PVM-L Series

For many years, Sony professional monitors have maintained an enviable reputation for outstanding performance and reliability. These new 20 and 14-inch models, the PVM-L4/L3 Series of color video monitors, are set to maintain this reputation for excellence. Building on the features and functions of the established PVM-M Series of monitors, these new monitors demonstrate the versatility of Sony display technology.

With compact design, stunning picture performance, flexible signal connections, a full range of optional functions and ease of operation, these new Sony monitors are designed to meet the demands of a wide range of picture monitoring requirements in production applications.



PVM-14L4



PVM-14L3



PVM-20L4

Features

New compact design

Compact chassis

A compact chassis design makes installation easy where rack or monitor stack space is limited.
Compared to the equivalent models in the PVM-M range, the PVM-20L4 mounts in just 9RU (one less rack unit) and the PVM-14L4/14L3 in 6RU (two less rack units).

Flush, LED-illuminated, push-button controls

Push-button controls are conveniently located on the front panel either side of the screen. These buttons are neatly mounted behind plastic film to avoid accidental operation. Their LED illumination can be turned off completely, or adjusted over five steps of brightness.

Input flexibility

Versatile analog signal inputs

The PVM-L4/L3 Series are equipped with input connectors for both component (Y/R-Y/B-Y, RGB, Y/C) and for composite signals to provide excellent system flexibility. An additional feature for accurate signal reproduction is that the component level can be adjusted according to the input system.

Worldwide TV standards

The PVM-L4/L3 Series accept PAL, SECAM and NTSC composite signals. NTSC 4.43 can also be reproduced.

Signal interface options

A range of optional input signal adaptors are available, any one of which can be inserted into the option slot in the rear panel. These options allow the PVM-L4/L3 Series to be customized to accept a wide variety of input signals.



SDTI-CP/SDI Decoder Adaptor

BKM-150CP

- SDTI-CP/SDI signal input (x 2)/SDTI-CP/SDI signal output with active loop-through (x 2)/decoded analog output (x 2)
- Power consumption: Max. 15 W

SDI 4:2:2 Decoder Adaptor

BKM-120D

- D-1 SDI signal input (x 2)/D-1 SDI signal output with active loop-through (x 2)
- Power consumption: 4 W

Analog Component Input Adaptor

BKM-129X

- Analog component signal input (Y/R-Y/B-Y, RGB) with loop-through (x1, automatic 75 Ω termination)/EXT SYNC with loop-through BNC (x1, automatic 75 Ω termination)
- Power consumption: 0.5 W

An adaptor for i.LINK™ (IEEE1394) is also planned for the future.

External sync

The PVM-L4/L3 Series accept an external sync signal for synchronization with other equipment. The external sync can be set so that it automatically switches according to the input selected.

Superior picture performance

High resolution

The HR Trinitron® CRT used in the PVM-20L4/14L4 provides a resolution of 800 TV lines. The PVM-14L3 provides 600 TV line resolution from a Trinitron CRT.

Accurate color matching

The HR Trinitron CRTs featured in the PVM-20L4/14L4 models have EBU standard phosphors. The highly accurate color reproduction of these monitors makes them ideal for applications such as color matching of sources. The Trinitron CRT in the PVM-14L3 has a P-22 phosphor.

Beam current feedback circuit

Because monitor white balance is prone to drift during continuous operation over a long period of time, PVM-L4/L3 Series monitors are equipped with a beam current feedback circuit. This eliminates white balance drift and results in long-term stability of color reproduction.

Auto white balance

With an optional BKM-14L Set-up Probe connected to the front panel of the PVM-L4/L3 Series, the color temperature of the display can be adjusted to a precise value.

Effective operational functions

Selectable aspect ratio

By pressing a front panel button, the aspect ratio can be switched between 4:3 and 16:9.

Switchable color temperature
Color temperature can be changed to D65, D93 or user preset (5,000 K to 10,000 K).

Blue Only mode
Enables noise on signal to be precisely evaluated. Chroma and phase adjustments are easy to make with the monochrome display in the Blue Only mode.

Monochrome mode
In this mode, monochrome pictures are displayed.

4:3 Area marker
Displaying the 4:3 Area marker enables the 4:3 aspect area of a 16:9 picture to be checked.

Underscan function
When the Underscan mode is selected, the entire active picture area is displayed. This makes it possible to view the entire image to check picture edges.

H/V Delay function
The H/V Delay function allows the blanking area and sync/burst signal to be observed by displaying the horizontal and vertical intervals in the center of the screen.

Auto/manual degaussing
When the power is turned on, the CRT is automatically degaussed. Degaussing can also be initiated by pressing the Manual Degauss button.

Choice of tally lamp color
The color of the tally lamps can be selected to be red, green or amber (red + green).

Ease of operation

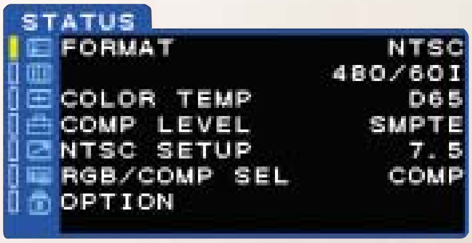
Auto Chroma/Phase Setup
An Auto Chroma/Phase Setup mode facilitates the complex, delicate procedure of monitor adjustment. Using broadcast standard color bars as a reference, this function automatically calibrates chroma and phase. This is very convenient for accurately matching the color reproduction of video signals, for example in computer-based editing systems.

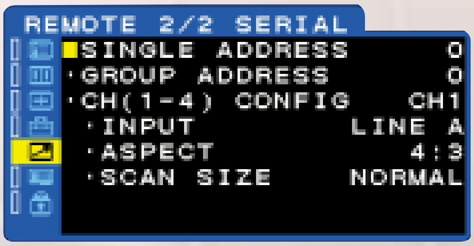
Parallel and RS-485 serial remote control
The PVM-L4/L3 Series have an 8-pin modular connector (parallel remote), allowing control from a custom control panel. An RS-485 serial remote feature allows a number of these monitors to be preset to an identically setup. This is achieved by daisy chaining their D-sub 9-pin connectors to a BVM Series monitor that is under the control of a Sony BKM-10R/11R monitor control unit.

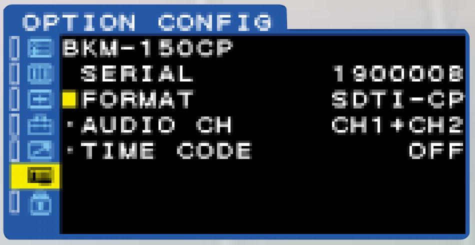
Sub-control mode
In this mode, the adjustment range of the Contrast, Brightness, Aperture, Chroma and Phase controls can be shifted.

User preset memory
Two user memories are available to hold two sets of front-panel control settings including Brightness, Chroma, Phase, Contrast and Volume.

On-screen menus
The PVM-L4/L3 Series provide a variety of window-type on-screen menus for monitor adjustment/operation. The on-screen menu display can be selected to be in English, French, German, Spanish, Italian or Japanese.







Others

Audio monitoring
A mono audio amplifier and loudspeaker are provided for audio monitoring.

VLF (Very Low Frequency) emissions
The PVM-L4/L3 Series are designed to minimize magnetic field emissions.

Worldwide power supply
All models operate over the range AC 100 to 240 V (50/60 Hz).

Mountable in a 19-inch EIA standard rack
The PVM-20L4 can be mounted in a 19-inch EIA standard rack with the optional Slide Rail SLR-104 and the PVM-14L4/14L3 with the optional Mounting Bracket MB-521.

Rear Panel



Optional accessories



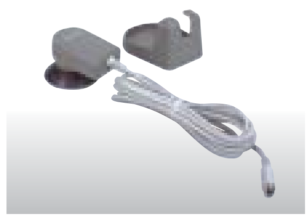
SDTI-CP/SDI Decoder Adaptor
BKM-150CP



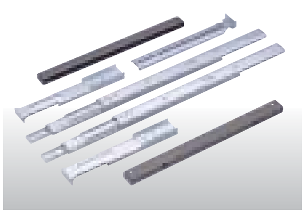
SDI 4:2:2 Decoder Adaptor
BKM-120D



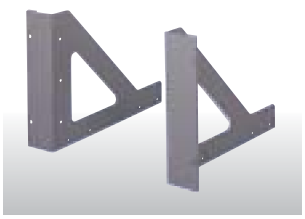
Analog Component Input Adaptor
BKM-129X



Auto Set-up Probe
BKM-14L



Slide Rail
SLR-104



Mounting Bracket
MB-521



16:9 Mask
for 20-inch monitor
(PVM-20L4)
BKM-200M



16:9 Mask
for 14-inch monitor
(PVM-14L4/14L3)
BKM-140M

Supplied accessories

AC Power Cord (1)
Operation Manual (1)

Specifications

		PVM-20L4	PVM-14L4	PVM-14L3
General				
CRT	CRT type	20-inch HR Trinitron	14-inch HR Trinitron	14-inch Trinitron
	AG pitch	0.31 mm	0.25 mm	
	Phosphor	EBU		P-22
	Effective picture size (4:3)	388.4 (W) x 292.6 (H) mm, 484.8 (Diagonal) mm	267.5 (W) x 200.6 (H) mm, 331.6 (Diagonal) mm	
	Effective picture size (16:9)	388.4 (W) x 228 (H) mm, 443 (Diagonal) mm	267.5 (W) x 150.5 (H) mm, 306.9 (Diagonal) mm	
Resolution (4:3/16:9)		800 TV lines (4:3)/600 TV lines (16:9)		600 TV lines
Color system		PAL,SECAM,NTSC,NTSC 4.43		
Aperture correction		OFF: 0 dB, ON: 2 to 6 dB		
Frequency response		LINE: 10.0 MHz +0 dB/-3 dB, Y signal only, RGB: 10.0 MHz +0 dB/-3 dB		
Synchronization		AFC time constant 1.0 ms		
Scanning frequency		15.734 kHz (NTSC, NTSC 4.43), 15.625 kHz (PAL, SECAM)		
Normal scan		7% overscan		
Underscan		5% underscan		
Linearity	Horizontal	Less than 5%	Less than 4%	
	Vertical	Less than 5%	Less than 4%	
Convergence	Center	0.5 mm (Typical)	0.4 mm (Typical)	
	Peripheral	0.7 mm (Typical)	0.5 mm (Typical)	
Raster size stability	Horizontal	1.0%		
	Vertical	1.5%		
HV regulation		4.0%	3.5%	
Color temperature		D65/D93/User adjustable		
Power requirements		AC 100 to 240 V, 50/60 Hz		
Power consumption (Typical/with options)		1.2 to 0.5 A/1.3 to 0.6 A, 115 W/120 W	0.9 to 0.5 A/1.0 to 0.6 A, 90 W/95 W	
Dimensions (W x H x D)		Approx. 452 x 414 x 500 mm (17 7/8 x 16 3/8 x 19 3/4 inches)	Approx. 346 x 280 x 424 mm (13 5/8 x 11 1/8 x 16 3/4 inches)	
Mass		Approx. 31 kg (68 lb 5 oz)	Approx. 17 kg (37 lb 8 oz)	
Input/Output				
Line A	Composite	Loop-through BNC, 1.0 Vp-p +3 dB/-6 dB, sync negative, automatic 75 Ω termination		
	Y/C*	Loop-through Mini Din 4-pin, automatic 75 Ω termination		
	Y	1.0 Vp-p, sync negative		
	C	0.286 Vp-p (NTSC), 0.3 Vp-p (PAL)		
	Audio	Phono jack, -5 dBu 47 kΩ or higher		
Line B	Composite	Loop-through BNC, 1.0 Vp-p, sync negative, automatic 75 Ω termination		
	Audio	Phono jack, -5 dBu 47 kΩ or higher		
RGB/Component		Loop-through BNC, automatic 75 Ω termination		
	G/Y	0.7 Vp-p +3 dB/-6 dB		
	Sync on G	0.3 Vp-p		
	B/B-Y	0.7 Vp-p +3 dB/-6 dB		
	R/R-Y	0.7 Vp-p +3 dB/-6 dB		
	Audio	Phono jack, -5 dBu 47 kΩ or higher		
Ext. sync		Loop-through BNC, automatic 75 Ω termination 4.0 Vp-p ± 6 dB, sync negative, usable tri-level sync signal 0.6 Vp-p ± 6 dB		
Option slot		1		
	Audio	Phono jack x 2, -5 dBu 47 kΩ or higher		
Remote	Parallel remote	Modular 8-pin (Assignable)		
	Serial remote	D-sub 9-pin (RS-485)		
Audio output		0.8 W (Distortion: Less than 5%)		
Safety regulations		EN 60950, CE (EMC), C-Tick, CCIB		
Operating conditions	Operating temperature	0 to +35˚ C (+41 to +104˚ F)		
	Storage temperature	-10 to +40˚ C (-4 to +140˚ F)		
	Operating humidity	30 to 85% (No condensation)		

* The Y/C input has priority over the Composite input.

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